ABSTRACT

A loop counter-thermosyphon heat pipe solar collector includes a capillary in a loop heat pipe. The capillary has a top opening end with a damper attached thereon. Working fluid may be ejected through the top opening end and deflected by the damper and sprayed on the loop heat pipe wall located on a heating side to generate film evaporation for increasing thermal conduction effect. A partition is provided at an bottom opening end of the capillary to separate and balance working fluid to resolve the problem of liquid reversed flow carrying away heat energy at night time.